

PRODUCT INFORMATION



4A7C-301-Nurr1 Agonist

Item No. 39453

Formal Name: N¹-(4,6-bis(4-ethylpiperazin-1-yl)pyrimidin-2-yl)-N²-(7-chloroquinolin-4-yl)ethane-1,2-diamine

Synonym: 4A7C-301-Nuclear Receptor-Related 1

MF: C₂₇H₃₈ClN₉

FW: 524.1

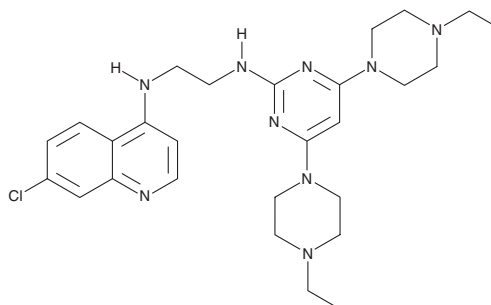
Purity: ≥98%

UV/Vis.: λ_{max}: 221 nm

Supplied as: A solid

Storage: -20°C

Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

4A7C-301-Nurr1 agonist is supplied as a solid. A stock solution may be made by dissolving the 4A7C-301-Nurr1 agonist in the solvent of choice, which should be purged with an inert gas. 4A7C-301-Nurr1 agonist is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 4A7C-301-Nurr1 agonist in ethanol is approximately 30 mg/ml and approximately 20 mg/ml in DMSO and DMF.

Description

4A7C-301-Nurr1 agonist is an agonist of nuclear receptor-related 1 (Nurr1).¹ It binds to the Nurr1 ligand-binding domain (LBD; IC₅₀ = 48.22 nM) and increases transcriptional activity of Nurr1-LBD and full-length Nurr1 in reporter assays using SK-N-BE(2)C human neuroblastoma cells (EC₅₀s = 6.53 and 50-70 μM, respectively). 4A7C-301-Nurr1 agonist (5 mg/kg per day) decreases dopaminergic cell death in the striatum and substantia nigra pars compacta, as well as reduces motor and olfactory deficits, without inducing dyskinesia-like behaviors in mouse models of Parkinson's disease induced by the neurotoxin MPTP or by overexpression of α-synuclein.

Reference

1. Kim, W., Tripathi, M., Kim, C., *et al.* An optimized Nurr1 agonist provides disease-modifying effects in Parkinson's disease models. *Nat Commun* **14**(1), 4283 (2023).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 08/28/2023

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM